

EXECUTIVE SUMMARY

In this report the current status of the docking facilities for vessels plying Boston Harbor as water taxis, shuttle boats, commuter vessels and cruise boats was reviewed. Although there are a number of docking facilities along the waterfront, none save Commonwealth Pier and part of Long Wharf provide for full access (access for the handicapped as well as the population at large) to vessels at all stages of the tide and even here only some vessels can take advantage of these provisions.

Some of the other ports were considered and their attempts at providing full access described. None with similar tidal ranges provide full access for smaller vessels similar to those in Boston Harbor at all stages of the tides.

Concepts for full access facilities which could be used in Boston Harbor are described. One system utilizes a series of short (32 foot) ramps between floats, each float restricted to a minimum elevation by a supporting structure. The other system uses a floating elevator which is a large box flooded and pumped to change deck elevation from pier height to vessel loading height.

Standards for three sizes of passenger handling systems are given. The systems being for:

1. Vessels under 30 feet in length (mostly small, outboards and dinghies),
2. Vessels under 70 feet in length (mostly water shuttles, some commuter and cruise boats),
3. Vessels up to 213 feet in length (includes the largest presently in Boston Harbor fleet but not including the vessels using the Black Falcon facility).

Additional standards are given for making these facilities suitable for full access.

The Appendix includes Environmental and Vessel Data for use in designing these facilities.

Commonwealth Pier, Boston (Figure 6) - The pier deck elevation is +18 feet above MLW. The local cruise and shuttle vessels use a floating access facility. This float has a deck house that allows the use of the float's deck and the deck house roof to provide access to the vessels regardless of the tide level. In order to qualify as a full access facility, it is necessary that the vessels be able to be loaded at two deck levels. The water depth at the pier face is 40 feet at MLW.

Logan Airport, East Boston (Figures 7 and 8) - The Water Shuttle facility uses a single level float and a ramp leading from the pier deck to the ramp. The pier deck elevation is unknown but presumed to be about +16 feet above MLW. Depth of water at the pier face is unknown.

Pier 7 South Boston (Figure 9) - Large vessels use the long float which has access from the fixed pier by one ramp. The ramp exceeds 1:12 slope at low tides. Small vessels use the marine floats also served by a ramp from the fixed pier.

Long Wharf, Boston (Figures 10 and 11) - Vessel loading is done utilizing a float with a deck house as at Commonwealth Pier and from a series of single level floats. The pier deck elevation is +14 feet above MLW. The water depth at the pier face varies from 11 to 20 feet at the southerly pier face.

On the north side of the pier there is a marina and a facility for a cruise boat. Both of these facilities use ramps from the pier deck to a single level float for passengers.

Lewis Wharf, Boston - The marina facility uses ramps to provide passenger access to the single level floats. The pier deck elevation on the south side of the wharf is +14 feet above MLW. The water depth at that side varies from 2 feet to 18 feet below MLW. (The shallow depth is at the inshore end of the wharf.)

Lincoln Wharf, Boston - The only active facility appears to be the City of Boston fire boat facility. The fire department rescue vessel is accessed from a single level float, up a ramp to a platform to the pier deck. Access from the platform to the pier deck is by a set of stairs. The pier deck is at elevation +14 feet above MLW. Depth of water at the pier face adjacent to the fire department rescue boat is 15 feet below MLW.

Charlestown Navy Yard, Charlestown - Pier 4 - One side of the pier is utilized for handling passengers on the Water Shuttle. This facility uses a single level float with a ramp leading from a platform above the pier deck and a ramp leading from the float to the vessel. Access to the platform is via a set of stairs. The other side used by the Boston Police boat and the "Courageous" Sailing Center uses a single level float with ramps leading from a platform above the pier deck. The "Courageous" uses steps from the float deck to the vessel deck. There are stairs from the platform above the pier deck to the pier deck. The pier deck is at elevation +15 feet above MLW. Depth of water at the pier faces is in excess of 25 feet at MLW.

MEMORANDUM

June 29, 1989

#5199

TO: BOSTON REDEVELOPMENT AUTHORITY AND
STEPHEN COYLE, DIRECTOR

FROM: VICTOR KAREN, DEPUTY DIRECTOR FOR
URBAN DESIGN AND DEVELOPMENT
DON KLABIN, SENIOR PROJECT MANAGER,
URBAN DESIGN AND DEVELOPMENT

SUBJECT: CENTRAL WHARF (PARCEL A-4) IN THE DOWNTOWN WATERFRONT
FANEUIL HALL URBAN RENEWAL AREA -- TECHNICAL ASSISTANCE
FROM DOCK PLANNING CONSULTANTS

EXECUTIVE

SUMMARY: THIS MEMORANDUM REQUESTS AUTHORIZATION FOR THE DIRECTOR TO ENTER INTO A CONTRACT WITH CHILDS ENGINEERING CORPORATION, MEDFIELD, MA, TO PROVIDE DOCK PLANNING SERVICES FOR THE PRELIMINARY PLANNING OF THE REDEVELOPMENT OF CENTRAL WHARF.

The New England Aquarium (NEA) is planning to relocate from Central Wharf to the Charlestown Navy Yard and, thereby, is seeking to sell the development rights for the redevelopment of Central Wharf to a private development team. The BRA has been working actively with the Aquarium's architectural and planning consultants since the fall of 1988 to prepare a preliminary master plan which would illustrate the development potential of Central Wharf in the context of the new Harborpark zoning. A draft version of the proposed Harborpark District zoning and a summary of the proposed Harborpark District Plan were distributed to the community on 14 June 1989.

The requested dock planning services will assist the BRA/NEA planning team in the evaluation of alternate dockage sites at Central Wharf in an attempt to accommodate the growing demand for water transportation services and facilities throughout Boston Harbor. In addition, these services will assist the planning team in allocating space for the proposed Waterfront Ferry Terminal, which would provide an important water-dependent use on the redeveloped Central Wharf. The inclusion of water-dependent uses is critical for the issuance of a Chapter 91 license to the future redeveloper of Central Wharf.

The results of this dock planning study will be coordinated with other downtown transportation planning studies which are being prepared now by TAMS and others for the BRA, Massport, and other public agencies. Where appropriate, the results of this study will be included in the preliminary master plan documents and in the Request for Qualifications to be issued later this year.

Board Memorandum
Central Wharf -- Dock Planning Services
19 June 1989
Page 2 of 2

Childs Engineering Corp. is well qualified to provide the needed technical assistance. This firm prepared the report "Prototype Docking Standards for Boston Harbor" for the City of Boston, BRA, Boston Transportation Department, and Environment Department during 1987-1988. (This report was authorized by a contract with the BRA dated July 30, 1987, was submitted in November 1988, and was issued publicly in December 1988. The report is referenced in the Harborpark District Plan.) Several pages of this report are attached for your reference.

An appropriate vote follows:

VOTED: That the Director be and hereby is authorized to enter into a consultant services contract with Childs Engineering Corp., Medfield, MA, for a period of no greater than five (5) weeks and in an amount not to exceed five thousand dollars (\$5,000.00), for dock planning services for the preliminary planning of the redevelopment of Central Wharf in the Downtown Waterfront Faneuil Hall Urban Renewal Area.

Enc.

File: CHILDSBM



CHILDS ENGINEERING CORPORATION

BOX 333 MEDFIELD, MASSACHUSETTS 02052 508/359-8945 FAX 508/359-2751

Kenneth M. Childs, Jr., P.E., President
David L. Porter, P.E., Vice President
Ronald R. Bourne, P.E., Vice President

June 2, 1989

Mr. Don Klabin
Senior Project Manager
Urban Design and Development
Boston Redevelopment Authority
One City Hall Square
Boston, Massachusetts
02201

Dear Mr. Klabin:

I refer to the discussion we had this week regarding the potential docking facilities which would be included in the redevelopment of Central Wharf, the present site of the New England Aquarium. I am very pleased that we are being considered to work on this project at this early stage. It is not too often that we have an opportunity to make suggestions while everybody's mind is still open.

We propose to study the four locations at the site which you identified during our meeting. Our studies would include the following:

Wind direction and velocities together with wave climates and water depths at each location. Although the four locations are in close proximity, shadowing from the buildings and pier will effect the wind and wave forces.

We will investigate the fairways and dockage spaces needed at each location. These considerations will include the needs of commuter vessels, excursion vessels, water shuttle boats, water taxis, and private vessels.

We will include a discussion of covered vs. non-covered facilities. We will also show ideas by means of sketches of the heights and distances under covers or partial covers which would be required.

CHILDS ENGINEERING CORPORATION

Mr. Don Klabin
June 2, 1989
Page 2

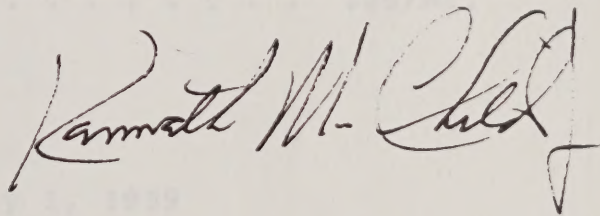
We will evaluate each site giving the positive and negative aspects of each. It is not our intention to make recommendations as to which site should be chosen since it appears too early in the project development to do this.

We suggest that a budget of \$5,000 be established to accomplish this work. Our actual charges would be in accordance with the enclosed rate sheet together with the direct reimbursement for any expenses which might be incurred. We can supply five copies of this report to you the week of July 3rd as long as by that time we have a signed contract from the Boston Redevelopment Authority or the New England Aquarium.

Thank you for considering Childs Engineering Corporation. We look forward to working with you.

Faithfully yours,

CHILDS ENGINEERING CORPORATION

A handwritten signature in dark ink, appearing to read "Kenneth M. Childs, Jr.", written in a cursive style.

Kenneth M. Childs, Jr.

/r

Encl.

CHILDS ENGINEERING CORPORATION

CHILDS ENGINEERING CORPORATION RATES

EFFECTIVE JULY 1, 1988 TO JULY 1, 1989

Founding Principal.	\$130/hr.
Project Managers	\$85 - \$110/hr.
Senior Engineers	\$60/hr.
Engineers	\$45 - \$50/hr.
Technicians/Drafters I	\$35 - \$45/hr.
Technicians/Drafters II	\$35/hr.
Technical Typists	\$40/hr.
Clerical	\$20/hr.

Rates subject to change after July 1, 1989

NOVEMBER 1988

PROTOTYPE DOCKING

STANDARDS

FOR

BOSTON HARBOR



HARBORPARK

PREPARED FOR:

CITY OF BOSTON

RAYMOND L. FLYNN
MAYOR

BOSTON REDEVELOPMENT AUTHORITY

STEPHEN COYLE
DIRECTOR

BOSTON TRANSPORTATION DEPARTMENT

RICHARD A. DIMINO
COMMISSIONER

ENVIRONMENT DEPARTMENT

LORRAINE M. DOWNEY
DIRECTOR

PREPARED BY:

CHILDS ENGINEERING CORPORATION

NOVEMBER 1988





CITY OF BOSTON • MASSACHUSETTS

OFFICE OF THE MAYOR
RAYMOND L. FLYNN

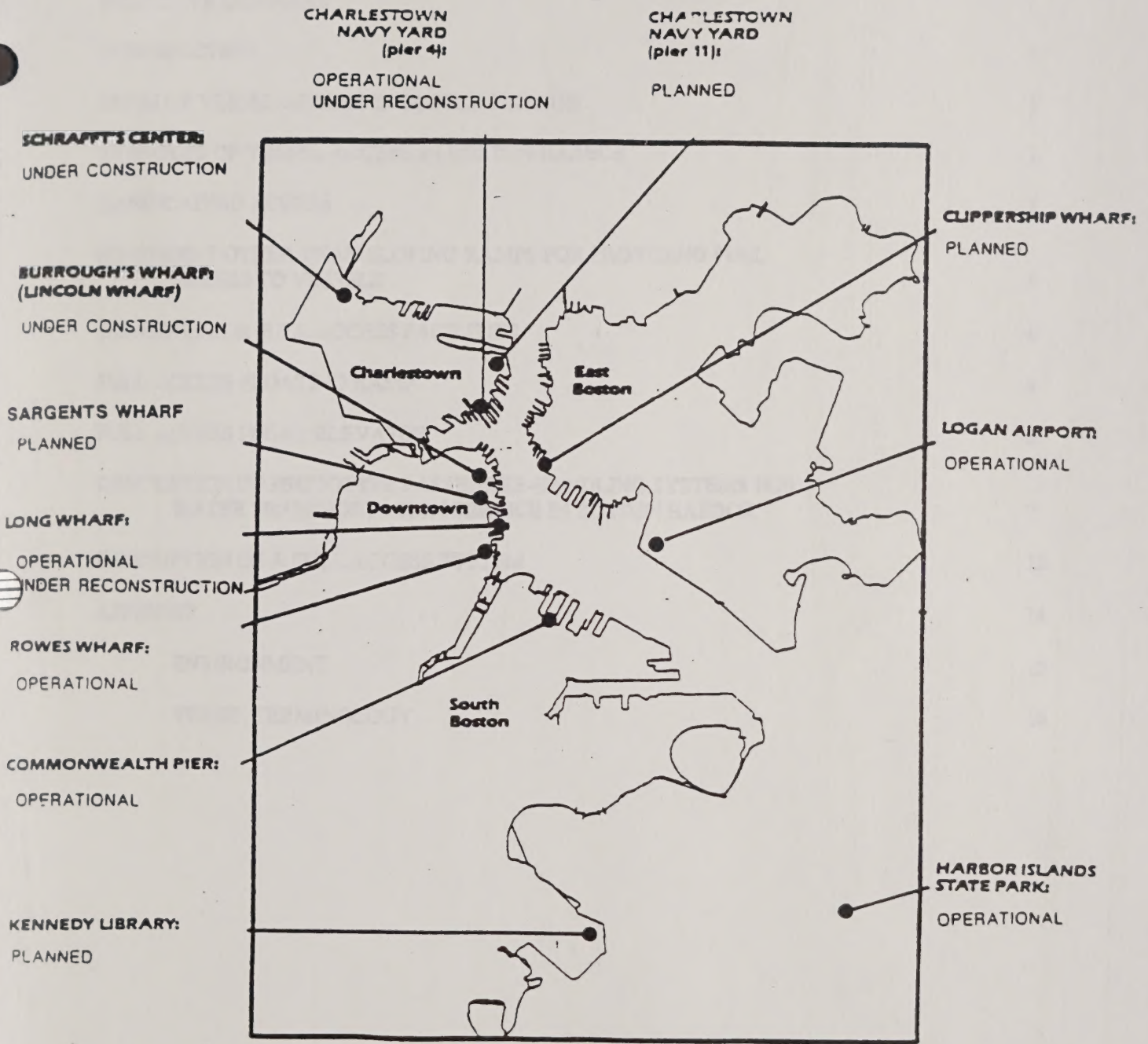
December 27, 1988

I can easily imagine a time when Boston Harbor once again becomes a vital part of this city's transportation network. Today, water transit is quickly re-emerging as a viable component of our transportation system. In this not too distant future water transit will provide the people of Boston with an efficient and convenient way to commute to work, visit recreational and historic sites, and come together to enjoy this beautiful harbor.

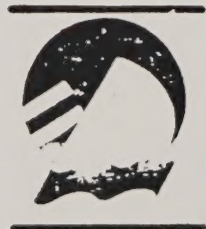
Our vision of a comprehensive water transit system could soon become a reality. We are requiring private investors building on the Harbor to include facilities for water transit as part of their projects. To make this ambitious water transportation system a success there must be strong cooperation among city and state agencies, private developers, and boat operators. With hard work and planning, this vision of a comprehensive water transportation system will soon be realized, and a city surrounded by water will truly fulfill the potential of its most significant natural resource, the Harbor.

Raymond L. Flynn, Mayor

DOCKAGE SITES IN BOSTON HARBOR



BOSTON HARBOR WATER TRANSPORTATION SITES



HARBORPARK

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
INTRODUCTION	1
TYPES OF VESSEL ACCESS IN BOSTON HARBOR	1
EXAMPLES OF VESSEL ACCESS IN BOSTON HARBOR	1
HANDICAPPED ACCESS	3
EQUIPMENT OTHER THAN SLOPING RAMPS FOR PROVIDING FULL ACCESS TO VESSELS	5
CONCEPTS FOR FULL ACCESS FACILITIES	6
FULL ACCESS FLOATING RAMP	6
FULL ACCESS FLOAT/ELEVATOR	6
DESCRIPTION OF PROTOTYPE PASSENGER-HANDLING SYSTEMS FOR WATER TRANSPORTATION SERVICE IN BOSTON HARBOR	7
DESCRIPTION OF A FULL ACCESS SYSTEM	12
APPENDIX	14
ENVIRONMENT	15
VESSEL TERMINOLOGY	16

